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FEDERAL COMMUNICATIONS COMMISSION  
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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
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Cellular Service and Other )  
Commercial Mobile Radio Services )  
in the Gulf of Mexico )  
 )  
Amendment of Part 22 of the )  
Commission's Rules to Provide )  
for Filing and Processing of )  
Applications for Unserved )  
Areas in the Cellular Service )  
and to Modify Other Cellular Rules )

WT Docket No. 97-112

CC Docket No. 90-6

To: The Commission

COMMENTS OF PAGING NETWORK, INC.

Paging Network, Inc. ("PageNet"), by its attorneys and pursuant Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415 and 1.419, hereby submits its Comments in the above-captioned proceeding.<sup>1</sup> If the Commission adopts the Notice's proposal to license water-based operations in the Gulf of Mexico in paging, SMR and narrowband PCS services, PageNet believes that additional licensing and operational rules are necessary to accommodate existing land-based operations in those services. Unlike land-based and water-based cellular operations, it is not possible to closely locate co-channel facilities of land-based and water-based carriers in the paging, SMR and

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<sup>1</sup> Cellular Service and Other Commercial Mobile Radio Services in the Gulf of Mexico; Amendment of Part 22 of the Commission's Rules to Provide for Filing and Processing of Applications for Unserved Areas in the Cellular Service and to Modify Other Cellular Rules, WT Docket No. 97-112 and CC Docket No. 90-6, released on April 16, 1997 ("Notice").

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narrowband PCS services where paging carriers typically only operate on a single channel and SMR and narrowband PCS licensees have determined to channelize spectrum at varying bandwidths. Accordingly, if the Commission should determine to authorize water-based systems in the paging, SMR and narrowband PCS services in the Gulf of Mexico, the following rules are necessary to protect such terrestrial operations from water-based operations: (i) water-based operations must be on a secondary basis to all existing and future land-based systems; (ii) water-based operations must not cause any harmful interference to land-based systems; and (iii) water-based licensees must provide full co-channel protection to land-based licensees currently operating in coastal areas, including any service area that extends over water. In addition, the Commission must clarify that incumbent nationwide CMRS licensees are already authorized to operate water-based facilities on their nationwide spectrum. In support of these Comments, the following is respectfully shown:

**I. Interest of PageNet**

PageNet, through its subsidiaries, is the largest paging carrier in the United States, serving over 10 million mobile units. PageNet is the licensee of 929 MHz paging systems, 931 MHz paging systems, 900 MHz specialized mobile radio service ("SMR") systems, and narrowband PCS systems throughout the United States, including systems providing land-based services to areas adjacent to the Gulf of Mexico, some of which are 929 MHz paging and narrowband PCS nationwide licenses. Because this proceeding will impact on PageNet's existing operations and the scope of its

nationwide licenses, PageNet has a compelling interest in this proceeding.

**II. Terrestrial CMRS Operations Must Be Protected From Water-Based Transmissions.**

**A. Water-Based CMRS Operations in the Gulf of Mexico Should Be Secondary to Terrestrial Co-Channel Operations.**

If the Commission allows water-based paging, SMR and narrowband PCS operations in the Gulf of Mexico, such operation should be allowed only on a secondary non-interference basis to existing and future land-based systems. Licensing water-based wireless operations without such a limitation would unfairly force existing and future land-based wireless licensees that serve large population bases and general communications needs in Gulf coast areas to incur uneconomic expenses just to directionalize their operations and negotiate consents with water-based operators who serve comparatively limited niche markets. Accordingly, to the extent that the Commission authorizes geographic water-based CMRS operations in the paging, 900 MHz SMR and narrowband PCS services in the Gulf of Mexico, these services should be licensed on a secondary, non-interference basis to land-based co-channel services in the Gulf region.

In contrast to the broad populations and diverse communications needs served by land-based wireless operations, the demand for water-based wireless services in the Gulf of Mexico is a very limited. Water-based wireless operations typically serve niche markets such as pleasure boating and ship-

to-shore communications. Moreover, the Commission must consider that a land-based operator and a water-based operator in the 900 MHz paging facilities would have to satisfy a minimum co-channel separation of 70 miles.<sup>2</sup> Thus, to allow water-based operators to place transmitters in coastal areas without limitation on their placement would clearly infringe on the authorized service areas of existing land-based operators and would place land-based operators in the position of having to negotiate and pay for consent from water-based operators serving limited niche markets. Certainly the Commission does not contemplate restricting the ability of land-based paging and other CMRS carriers in Gulf coast areas from serving their broad subscriber bases simply to allow water-based operators to serve limited niche services.

Furthermore, the Commission's licensing rules already provide for primary wireless operations to serve these markets in other services such as offshore radiotelephony, public and private coast stations and the maritime service.<sup>3</sup> Thus, allowing water-based operations licensed pursuant to the rules proposed in the Notice on a primary basis vis-a-vis land-based operations would be especially contrary to the public interest considering that there is spectrum already allocated for primary operations to serve niche water-based markets.

In order to preserve the primary operational status of land-based paging, 900 MHz SMR and narrowband PCS licensees in

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<sup>2</sup> See 47 C.F.R. § 22.537.

<sup>3</sup> See 47 C.F.R. §§ 22.1001 *et seq.* (Offshore RadioTelephone Service); 47 C.F.R. Part 80 (Stations in the Maritime Service).

the Gulf region, the Commission also should adopt a rule prohibiting placement of facilities by water-based providers in these services on land absent consent of the existing land-based operator(s) licensed in the service area(s) impacted by the water-based operator's proposed transmitter placement. Furthermore, operations from transmitters placed on land by water-based carriers pursuant to the land-based carrier's consent should be on a secondary, non-interference basis to the land-based carrier's operations. Adoption of these limitations would be consistent with the Notice's tentative proposal to afford limited flexibility to water-based cellular licensees to place transmitters on land, but only upon the consent of the adjacent land-based cellular licensee and subject to interference protection conditions set forth in the service area boundary extension provisions of Section 22.911(d)(2) of the Commission's Rules.<sup>4</sup>

**B. Strong Interference Protections For Terrestrial Systems Should Be Adopted**

The Commission must adopt strong protections to prevent interference caused by such water-based CMRS operations to terrestrial co-channel licensees in the paging, 900 MHz SMR and narrowband PCS services. To state the matter simply, under no circumstances should the Commission place water-based licensees in a position to diminish the ability of land-based licensees to provide the mobile services that they have been authorized to provide in coastal areas. Although water-based operations in the

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<sup>4</sup> See Notice at ¶¶ 39-40.

Gulf region may provide a niche service to boaters, the need to serve such niche markets does not justify disruption of land-based co-channel operations and does not justify forcing land-based licensees to limit their licensed operations simply to accommodate niche water-based operations.

The Notice correctly observes that there are "unique conditions [in] providing water-based service in the Gulf of Mexico" that warrant strong interference protections for terrestrial operations in the Gulf region.<sup>5</sup> For example, radio waves generally propagate with less loss over water.<sup>6</sup> By virtue of an atmospheric condition called "ducting," radio signal propagation is enhanced over or near large bodies of water such as the Gulf of Mexico.<sup>7</sup> This enhanced propagation characteristic increases the likelihood of interference from water-based systems in the Gulf to land-based transmitters. Accordingly, if the Commission authorizes water-based CMRS licensees in the Gulf of Mexico, these licenses should be expressly conditioned on not causing any harmful interference to

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<sup>5</sup> Id. at ¶¶ 60-62.

<sup>6</sup> See, e.g., Notice at ¶ 37 ("signals are attenuated less over water"); Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services; Amendment of Part 22 of the Commission's Rules to Delete Section 22.119 and Permit the Concurrent Use of Transmitters in Common Carrier and Non-Common Carrier Service; Amendment of part 22 Paging Stations Operating in the 931 MHz Band in the Public Land Mobile Service, 9 FCC Rcd 6513, 6563 (1994) (with respect to one-way paging "[r]adio waves generally propagate with less loss over water").

<sup>7</sup> See, e.g., Amendment of Section 73.202(b), Table of Allotments, FM Broadcast Stations (East Los Angeles, Long Beach, and Frazier Park, California), 10 FCC Rcd 2864, 2865 n.9 (1995).

terrestrial co-channel CMRS operations, including the paging, narrowband PCS and 900 MHz SMR services. The Commission should also impose adequate restrictions on antenna height and effective radiated power of water-based paging, narrowband PCS and 900 MHz SMR services in the Gulf of Mexico in order to ensure that the potential for interference to terrestrial based co-channel systems is obviated.

**C. The Service Area of Incumbent Land-Based CMRS Licensees Should Be Entitled to Full Co-Channel Protection in the Gulf Region.**

The Notice tentatively concludes that the public interest is best served by providing that any authorized *de minimis* contour extensions into the Gulf of Mexico Service Area ("GMSA") by a land-based incumbent cellular licensee be incorporated into its current authorized cellular geographic service areas,<sup>8</sup> thereby essentially affording such area full co-channel protection.<sup>9</sup> Regulatory parity requires that all incumbent CMRS licensees providing land-based services in the Gulf region also enjoy full co-channel protection from water-based licensees where their land-based systems' current service contours extend over water area. Moreover, this would ensure that incumbent licensees would

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<sup>8</sup> See Notice at ¶¶ 35-36.

<sup>9</sup> It should be noted that cellular licensees operate under a specific uniform channelization. Because of a multiple channel configuration, cellular licensees are able to share border areas by each agreeing to only use specific channels. In contrast, most current paging systems operate on a single channel, and PCS and SMR systems may operate at varying bandwidths making border-sharing problematic, absent a requirement that water-based licensees be authorized on secondary basis to land-based licensees.

not have to re-engineer their systems to accommodate limited niche services of water-based systems.

In addition, the public interest requires that the Commission establish a rule providing full co-channel protection to land-based wireless licensees. An incumbent terrestrial wireless licensee serving land-based populations near the Gulf of Mexico should not be deprived of its right to serve the tens of thousands of land-based subscribers within its service area simply because its service area incidentally extends over the limited niche subscriber base of a water-based licensee in coastal and water areas in the Gulf of Mexico. Alternatively, not requiring that land-based licensees receive full co-channel protection from water-based operations would provide water-based licensees with an improper incentive to engage in "greenmail" of land-based licensees by exacting a monetary concession from land-based licensees whose service contours may happen to extend over water.

**III. The Commission Should Clarify that Existing Nationwide Paging and Narrowband PCS Licenses Provide Authority to Serve the Gulf of Mexico.**

The Commission should clarify that existing holders of nationwide wireless licenses, including nationwide paging and narrowband PCS licensees, are authorized to provide service to the Gulf of Mexico. The Gulf of Mexico should be included within the scope of all nationwide CMRS authorizations, including paging and narrowband PCS. This would mean that there would be no additional licensing of nationwide existing or future nationwide channels to separate water-based licensees.



For 929 MHz paging nationwide licensees, this clarification would be in accordance with the licensing of these systems. Specifically, under old Section 90.495 of the Commission's Rules, once a nationwide licensee had been awarded nationwide exclusivity, no licensee, other than the nationwide licensee, was able to apply for facilities utilizing the nationwide channel. As such, the Commission cannot now authorize another co-channel licensee on a 929 MHz paging nationwide channel without reducing the scope of the original award of the nationwide 929 MHz license.<sup>10</sup>

For the nationwide narrowband PCS licenses, when PageNet paid approximately \$200 at auction for these licenses, PageNet's expectation was that it was to be the only licensee on its authorized channels providing such service to subscribers and that it could represent to its subscribers that the service was nationwide in scope. If a nationwide subscriber needs a second mobile unit to receive a message in the Gulf water area because a second licensee has been authorized on the nationwide spectrum, the subscriber does not receive service that is nationwide in scope. Moreover, PageNet certainly could not have anticipated that the Commission would license a separate licensee to serve water-area 12 miles from its land based operations. As such, if the Commission licenses water-based licensees on nationwide PCS

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<sup>10</sup> For the purposes of parity, all nationwide licenses should be treated the same by including water areas within the scope of the nationwide licenses.

channels, the Commission will be diminishing the scope of the nationwide licenses.

**WHEREFORE**, for the foregoing reasons, PageNet requests that the Commission adopt rules in accordance with the Comments herein presented.

Respectfully submitted,

**PAGING NETWORK, INC.**

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